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September 28, 2007

Ms. Cheryl Kikuta
Division of Consumer Advocacy
Department of Commerce and Consumer Affairs
335 Merchant Street, Room 326
Honolulu, Hawaii 96813

PUBLIC UTILITIES
COMMISSION

2007 SEP 28 P 4:13

FILED

Dear Ms. Kikuta:

Subject: Docket No. 2006-0386 – HECO 2007 Test Year Rate Case
EPRI Co-Funding Agreement for Biofuel Crop Study

As stated on page 16 of the Stipulated Settlement Letter filed on September 5, 2007 in this proceeding, Hawaiian Electric Company, Inc. ("HECO" or "Company") agreed to provide the Division of Consumer Advocacy with copies of the co-funding agreement with EPRI and its co-matching check to support the biofuels crop study that the Hawaiian Agriculture Research Center would oversee. HECO T-13 Attachment 2 of the September 5, 2007 Stipulated Settlement Letter reflected a cost of \$50,000 for the biofuel crop study. The attached HECO T-13 Attachment 4 provides a copy of the agreement and the check for \$50,000.

If you have any questions, please call me at 543-4622.

Very truly yours,

Dean K. Matsuura
Manager, Regulatory Affairs

Attachment

cc: Division of Consumer Advocacy
Dr. Khojasteh Davoodi
Randall Young, Esq.



Supplemental Project Agreement

1. **Project Title; Agreement, Funder and Project Numbers:** This Supplemental Project Agreement applies to the Project entitled: ***"Biofuels Crop Research In Hawaii"***. The Parties will reference Supplemental Project Agreement number **CF 012202-11156 (Project ID No. 066276)** in all correspondence. The terms and conditions of the Master Agreement between the Parties dated January 3, 2007 are incorporated herein and govern all Work hereunder. Any Purchase Order issued by Member pursuant to this Agreement is solely for Member's internal accounting requirements and, as such, the terms and conditions of such Purchase Order are superseded by the terms and conditions set forth in this Agreement.

2. **Contact Information:**

Contact	Name	Phone/Fax	Email
EPRI Project Manager:	David O'Connor	650-855-8970	doconnor@epri.com
EPRI Contracts:	Josephine M. Erickson	850-855-2003 / 1032	jerickson@epri.com
EPRI Sector Account Executive:	Richard Menar	850-855-2898	rmenar@epri.com
Member Contracts	Arthur Seki	808-543-7987 / 808-203-1581	arthur.seki@heco.com
Member Project Manager:	Darren Ishimura	808-543-7814	darren.ishimura@heco.com

3. **Project Funding In U.S. Dollars:**

Funding Year	-2007-	-2008-	-2009-	-2010-	TOTAL
Funder Cofunding	\$103,000				\$103,000
Total U.S. Dollars	\$103,000				\$103,000

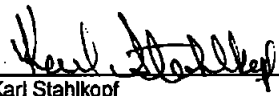
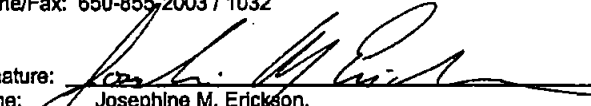
4. **Project Objectives, Tasks and Deliverables:** See Attached Exhibit 1, incorporated herein by reference.
5. **Invoicing:** Funder will be Invoiced for \$50,000 in 2007, the balance of \$53,000 will be paid from Funder's Deposit Account.

☐ Current year payment enclosed (This form is the invoice for the current year).

☒ Address invoices to: Val Takata (KS3-9S)
Hawallan Electric Company, Inc.
P.O. Box 2750
Honolulu, HI 96840-0001
Delivery: 820 Ward Ave.
Honolulu, HI 96814
Phone/Fax: 808-543-7656 / 7657
E-mail: val.takata@heco.com

HAWAIIAN ELECTRIC COMPANY, INC.

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Project Agreement to be executed by their duly authorized representatives.

<p>Approval / HAWAIIAN ELECTRIC COMPANY, INC. 820 Ward Ave (M/S WA4-NR) Honolulu, HI 96840-0001 Phone/Fax: 808-543-7987 / 808-203-1581</p> <p>Signature:  Name: Karl Stahlkopf Title: Sr. VP, Energy Solutions & Chief Tech. Officer Date: 9/7/07</p>	<p>Approval / ELECTRIC POWER RESEARCH INSTITUTE, INC. Post Office Box 10412 3420 Hillview Avenue Palo Alto, Ca 94303 Phone/Fax: 650-855-2003 / 1032</p> <p>Signature:  Name: Josephine M. Erickson, Title: Revenue Contract Negotiator Date: September 10, 2007</p>
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HAWAIIAN ELECTRIC COMPANY, INC.

Exhibit 1
To
Supplemental Project Agreement
CF 012202-11156 (Project ID No. 066276)
"Biofuels Crop Research in Hawaii"

A. Background and Objectives

The use of liquid biofuels (e.g., ethanol and biodiesel) in electric power generating units represents a potential option to increase HECO Utilities' renewable energy portfolio. ("HECO Utilities" herein refers to HECO and its subsidiary utilities HELCO and MECO.) In addition, utilizing biofuels for electric power generation will help HECO meet its Renewable Portfolio Standard (RPS) and reduce its consumption of fossil fuels. HECO Utilities currently have ongoing initiatives to evaluate the use of biofuels for electric power generation.

The use of biofuels in Hawaii to reduce its dependence on imported fossil fuels is a strategy that is also being considered by many public and private stakeholders in a variety of initiatives. However, there remains an information gap on biofuel crop strategies and implementation for Hawaii. Questions remain on agronomic requirements, climatic and hydrologic needs, fertilization requirements, pest profiles, invasive characteristics, milling requirements and oil return from milling, and waste stream characteristics in the unique volcanic environment of Hawaii. The work under this contract will benefit the public by beginning to fill these information gaps with the new learnings from the project.

A partnership dedicated to investigate the aforementioned issues can make the difference on which crops to establish in Hawaii to enable energy independence. It may very well be that no single crop plant as a fuel source will satisfy all environments available for biofuel exploitation within the state. In this case, knowledge of different plant productivity in different climates/niches will be useful. Maximizing the profitability of any crop requires matching the crop to the agro-environmental conditions and optimizing production practices. This in turn could help establish a local supply of biofuels for HECO Utilities.

The objective of this project is to gain a better understanding of plant productivity of various oil crops in different climates/niches in Hawaii such that key stakeholders have critical information relevant to evaluating the most promising oil crop options for local biodiesel production.

B. Tasks

Towards meeting the above objective, three research tasks are planned:

- Task 1 – Develop and install test plots of *Moringa oleifera* ("malanguy") at two sites on the island of Molokai to determine its potential for biodiesel production in Hawaii and continue its oil processing analysis work
- Task 2 – Initiate testing at multiple sites on the Big Island of Hawaii for evaluating performance of *Jatropha curcas* and *kukui* trees and subsequent data collection to begin developing growth models for Hawaii
- Task 3 – Import hybrid oil palm seed materials, begin shadehouse grow-outs of this material, and initiate plots at multiple locations on the Big Island of Hawaii to test adaptability to various Hawaii microclimates to later develop Proof of Concept economic models.

HAWAIIAN ELECTRIC COMPANY, INC.

C. Deliverables

The deliverable targeted for this project is a final report that includes progress and findings of all project tasks. The non-proprietary results of this work will be incorporated into EPRI R&D program 84, Renewable Energy, and made available to funding members of that program and to the public, for purchase or otherwise.

D. Estimated Period of Performance/Estimated Schedule

The project is scheduled to start in September 2007 and continue through November 2008. Subtasks are planned that will require further funding over multiple years; however this contract will be amended later to account for that future work.

HAWAIIAN ELECTRIC COMPANY, INC.

DATE
09/27/07
HECO
CHECK NO.
72791
002746

The attached Check is in Payment of the following Invoice(s):

Date	Invoice/Credit Memo	Type	Description	Gross	Discount	Net
09/14/07	EP00324058		V09291	50000.00		50000.00
TOTAL				50000.00	0.00	50000.00

REMOVE DOCUMENT ALONG THIS PERFORATION

HAWAIIAN ELECTRIC COMPANY, INC.

Bank of Hawaii
Honolulu, Hawaii

59-102
1215

CHECK NO.
72791

PAY FIFTY THOUSAND DOLLARS AND ZERO CENTS
TO THE ORDER OF

ELECTRIC POWER RESEARCH
INSTITUTE - EPRI DEPT 1527
P.O. BOX 61000
SAN FRANCISCO CA 94161

DATE
09/27/07
CHECK AMOUNT
*****50,000.00

James H. Rumba

⑈072791⑈ ⑆121301028⑆ 0081⑈032688⑈

SEE REVERSE SIDE FOR OPENING INSTRUCTIONS

Hawaiian Electric Company, Inc.
PO BOX 2750 HONOLULU, HI 96840-0001
KS3-AD



ELECTRIC POWER RESEARCH
INSTITUTE - EPRI DEPT 1527
P.O. BOX 61000
SAN FRANCISCO CA 94161

72791

PO V 09291 2746

EPRI	INVOICE	Invoice:	EP00324058
		Invoice Date	September 14, 2007
		Page:	1 of 1

Please Remit To:
EPRI-DEPT #1527
PO Box 61000
San Francisco CA 94161
United States

Customer No: 11156
Payment Terms: Net 30
Due Date: October 14, 2007
Customer Ref:

Customer: Hawaiian Electric Co., Inc.
Jim B. Beavers M/S WAG-HA
900 Richards St
Honolulu HI 96813-2956
United States

AMOUNT DUE: 50,000.00 USD

For billing questions, please call:

850-855-2689

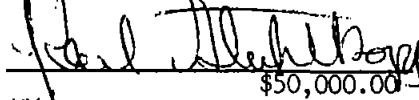
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Line	Description	Quantity	UOM	Net Amount
1	66276-CF Biofuels Crop Research in Hawaii	1.00	EA	103,000.00
2	Deposit Account for General Use	1.00	EA	(53,000.00)

Subtotal: 50,000.00

AMOUNT DUE: 50,000.00 USD

APPROVED FOR PAYMENT


\$50,000.00

Please wire funds to:
Bank of America, New York, NY
ABA# 026009593
Acct. No.: 1233954313
SWIFT Address: BOFAUS3N

Tax I.D. # 23-7175375
EPRI is a non-profit United States Corporation.
Please include an invoice copy with your remittance.

EXPEDITE